Antec.
The Power of You

STUDIO SERIES

TAKE 4

4U RACKMOUNT CASE

User's Manual

At Antec, we continually refine and improve our products to ensure the highest quality. So it's possible that your new case may differ slightly from the descriptions in this manual. This isn't a problem; it's simply an improvement. As of the date of publication, all features, descriptions, and illustrations in this manual are correct.

Disclaimer

This manual is intended only as a guide for Antec's Computer Enclosures. For more comprehensive instructions on installing your motherboard and peripherals, please refer to the user's manuals which come with your components and drives.

TAKE 4 — STUDIO SERIES USER'S MANUAL

CONNECTING THE POWER

The power supply conforms to the latest ATX12V Version 2.0 standard. It is also backwards-compatible with previous ATX form factor power supplies. If your motherboard has a 20-pin power receptacle, detach the 4-pin attachment on the 24-pin power connector (see pictures 1 and 2). Before you connect the power supply to any of your devices, please consult the appropriate user manuals for your motherboard and other peripherals.

Picture 1

For 24-pin motherboards

Picture 2

For 20-pin motherboards
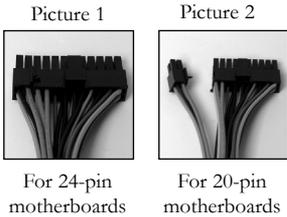
[Applies only to models designed for sale in the European Union:
SmartPower 2 series power supply models designed for the EU include Power Factor Correction (PFC) circuitry in accordance with European standard regulation code EN61000-3-2. By altering the input current wave shape, PFC improves the power factor of the power supply. This results in increased energy efficiency, reduced heat loss, prolonged life for power distribution and consumption equipment, and improved output voltage stability.]

The power supply is also equipped with a 3-pin fan signal connector. Connect it to one of the fan connectors on your motherboard. You may monitor the speed of the rear power supply fan through your motherboard BIOS or through the monitoring software that's supplied with your motherboard. **Note:** At low temperatures, the fan may run as slow as 950RPM. At these speeds, some motherboards may not properly detect the fan speed and may generate false warnings of fan failure. To ensure proper monitoring of the fan, please check your motherboard manual.

POWER SUPPLY AIR DUCT

There is a special duct leading from the front of the chassis to the power supply. This design is in place to keep the power supply quieter by providing the power supply with its own source of air separate from the rest of the system. The power supply will draw air in from the front of the case and exhaust it out the rear.

SIDE VENTS

There are vents on the left side of the rackmount. In an open rack environment, they increase the airflow in the system by allowing more fresh air into the system when necessary. If you are keeping your rackmount in a cabinet where environmental air circulation is not as good as open

rack, please use the clear plastic film that came with the toolbox to cover the ventilation (see picture 3). This can prevent hot air in the cabinet from entering the system and causing heat related system problems.
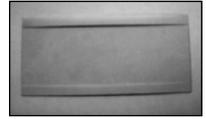
CONNECTING THE USB PORTS

You will find two 4-pin connectors on cables attached to the front USB ports. Connect the 4-pin connectors to your motherboard headers so that the USB Power pins match the VCC pins on the connectors.

Note: Please check your motherboard manual for your USB header pin layout and make sure it matches the attached table. If it does not match, please call Antec customer support at (800) 22ANTEC (North America) or at +31 (0) 10 462-2060 (Europe) to buy a USB adapter. This adapter will allow you to connect the front USB to your motherboard on a pin-by-pin basis.

Intel Standard USB Header Pin Layout
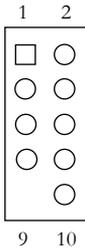
Pin	Signal Names	Pin	Signal Names
1	USB Power 1	2	USB Power 2
3	Negative Signal 1	4	Negative Signal 2
5	Positive Signal 1	6	Positive Signal 2
7	Ground 1	8	Ground 2
9	Key (No Pin)	10	Empty Pin

CONNECTING THE IEEE 1394 (FIREWIRE®, I.LINK®) PORT

You will find a single 10-pin connector on a cable attached to the front IEEE 1394 connection. This is an Intel standard connector, which is keyed so that it can't be accidentally reversed as long as it is connected to a proper Intel standard motherboard header. Connect the 10-pin connector to your motherboard header so that the blocked pin fits over the missing header pin.

Note: Please check your motherboard manual for your IEEE 1394 header pin layout and make sure it matches the attached table. If you intend to connect the front FireWire port to an IEEE 1394 add-on card that comes with an external-type IEEE1394 connector, please call Antec customer support at (800) 22ANTEC (North America) or +31 (0) 10 462-2060 (Europe) to buy an adapter. This adapter will allow you to connect the front IEEE 1394 port to the external-type connector.

Standard Pin Assignment for IEEE 1394 Connector
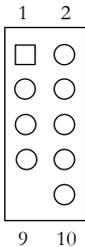
Pin	Signal Names	Pin	Signal Names
1	TPA+	2	TPA–
3	Ground	4	Ground
5	TPB+	6	TPB–
7	+12V (Fused)	8	+12V (Fused)
9	Key (No Pin)	10	Ground

3.5" DEVICE INSTALLATION

With the front bezel facing you, turn the latch and swing the front door. You can see there are two 5.25" and two 3.5" external drive bays. Inside the case there are four 3.5" drive cages.

For external 3.5" devices:

1. Locate the external 3.5" drive bays. They are to the right of the 5.25" drive bays.
2. Unscrew the 4 small Phillips head screws located on the front panel around the drive cage.
3. Pull the cage and unscrew the drive bay covers.
4. Install your external 3.5" devices.
5. Reattach the cage and devices to the chassis.
   Note: Don't take off the covers and plates for the drive bays that you are not using now.

For Internal devices:

6. Loosen the thumbscrews on each side of the drive bay, for the drive bay that you wish to install a device.
7. Pull the drive tray forward all the way out of the chassis.
8. Mount your hard drive or other internal 3.5" device into the drive tray through the bottom rubber grommets with the special screws provided (see picture 4). **Note:** Don't over-tighten. Over-tightening the screws will harm the vibration–and noise–reducing ability of the rubber grommets.

picture 4

9. Slide the tray/device assembly back into the chassis and retighten the thumbscrews.
10. Repeat the above as necessary.
11. Connect either a large 4-pin connector or SATA power connector from the power supply to the male 4-pin connector or SATA connector on each of the other devices.

5.25" DEVICE INSTALLATION

1. Unscrew the two screws on the left side of chassis. Unscrew the four screws around the front of the 5.25" drive bays (along the top and right sides of the cage).
2. Pull the cage towards the back of the case and then lift the cage out.
3. Unscrew the screws that attach the drive bay cover to the cage.
4. Install your 5.25" device.
5. Mount the other devices accordingly. Connect a large 4-pin connector from the power supply to the male 4-pin connector on each of the devices.

COOLING SYSTEM

The TriCool fan:

The case includes one 120mm TriCool fan and one 92mm TriCool installed in the rear. These fans have a three-speed switch that lets you choose between quiet, performance, or maximum cooling. (See specifications below.) The fans are installed so that the air is blowing out of the case. Connect a large 4-pin connector from the power supply to the male 4-pin connector on the fan.

Note: The minimum voltage to start the fan is 5V. We recommend our users to set the fan speed to High if you choose to connect the fan to a fan control device or to the Fan-Only connector found on some of Antec's power supplies. A fan-controlled-device regulates the fan speed by varying the voltage to it. The voltage may start as low as 4.5 V to 5V. Connecting a TriCool set on Medium or Low to a fan-control device may result in the fan not being able to start. The already lowered voltage from the fan control device will be further reduced by the TriCool circuitry below 5V.

Specifications:

Size: 120 x 120 x 25.4 mm
Rated Voltage: DC 12V
Operating Voltage: 10.2V ~ 13.8V

Speed	Input Current	Air Flow - at rated voltage zero static pressure (minimal value)	Static Pressure - at rated voltage at zero air flow	Acoustical Noise	Input Power
High 2000RPM	0.24A (max.)	2.24 m³ / min (79 CFM)	2.5mm-H2O (0.10inch-H2O)	30 dBA	2.9 W
Medium 1600RPM	0.2A	1.59 m³ / min (56 CFM)	1.5mm-H2O (0.06inch-H2O)	28 dBA	2.4 W
Low 1200RPM	0.13A	1.1 m³ / min (39 CFM)	0.9mm-H2O (0.04inch-H2O)	25 dBA	1.6 W

Specifications:

Size: 92 x 92 x 25.4 mm
Rated Voltage: DC 12V
Operating Voltage: 10.2V ~ 13.8V

Speed	Input Current	Air Flow - at rated voltage zero static pressure (minimal value)	Static Pressure - at rated voltage at zero air flow	Acoustical Noise	Input Power
High 2000RPM	0.2A (max.)	1.08 m³ / min (38 CFM)	1.0mm-H2O (0.08inch-H2O)	27 dBA	2.4 W
Medium 1600RPM	0.1A	1.09 m³ / min (28 CFM)	0.5mm-H2O (0.02inch-H2O)	20.8 dBA	1.2 W
Low 1200RPM	0.08A	0.59 m³ / min (21 CFM)	0.3mm-H2O (0.01inch-H2O)	14.6 dBA	1.0 W

Antec, Inc.
47900 Fremont Blvd.
Fremont, CA 94538
Tel: 510-770-1200
Fax: 510-770-1288

Antec Europe B.V.
Sydneystraat 33
3047 BP Rotterdam
The Netherlands
Tel: +31 (0) 10 462-2060
Fax: +31 (0) 10 437-1752

Technical Support
US & Canada
1-800-22ANTEC
customersupport@antec.com

Europe
+31 (0) 10 462-2060
europe.techsupport@antec.com

www.antec.com